

# 6JH8

## Beam-Deflection Tube

### 9-PIN MINIATURE TYPE

#### GENERAL DATA

##### Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC) . . . . .	6.3 ± 0.6	volts
Current at heater volts = 6.3 . . .	0.300	amp

Direct Interelectrode Capacitances:<sup>a</sup>

Grid No.1 to all other electrodes except both plates. . . . .	7.5	μf
Grid No.1 to deflecting electrode No.1. . . . .	0.04 max.	μf
Grid No.1 to deflecting electrode No.2. . . . .	0.07 max.	μf
Plate No.1 to all other electrodes. . . . .	5.0	μf
Plate No.2 to all other electrodes. . . . .	5.0	μf
Plate No.1 to plate No.2. . . . .	0.4	μf
Deflecting electrode No.1 to all other electrodes . . . . .	4.8	μf
Deflecting electrode No.2 to all other electrodes . . . . .	4.8	μf
Deflecting electrode No.1 to deflecting electrode No.2. . . . .	0.38	μf

Characteristics, Class A<sub>1</sub> Amplifier:

*With both plates connected together and with both  
deflecting electrodes connected to cathode at socket*

Plate-No.1 Supply Voltage . . . . .	250	volts
Plate-No.2 Supply Voltage . . . . .	250	volts
Grid-No.3 Voltage . . . . .	250	volts
Cathode Resistor. . . . .	220	ohms
Total Plate Current . . . . .	14	ma
Grid-No.3 Current . . . . .	1.5	ma
Transconductance. . . . .	4400	μmhos
Grid-No.1 Voltage (Approx.) for total plate $\mu$ a = 10 . . . . .	-13	volts

##### Mechanical:

Operating Position. . . . .	Any
Type of Cathode . . . . .	Coated Unipotential
Maximum Overall Length. . . . .	2-5/8"
Maximum Seated Length . . . . .	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip) . . . . .	2" ± 3/32"
Diameter. . . . .	0.750" to 0.875"
Dimensional Outline . . . . .	See <i>General Section</i>
Bulb. . . . .	T6-1/2
Base. . . . .	Small-Button Noval 9-Pin (JEDEC No.E9-1)



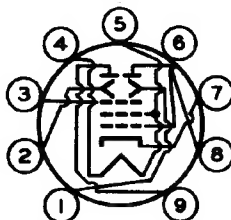
RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.

DATA I  
5-62

# 6JH8

Basing Designation for BOTTOM VIEW. . . . . 9DP

Pin 1-Deflecting  
Electrode  
No.2  
Pin 2-Deflecting  
Electrode  
No.1  
Pin 3-Grid No.3  
Pin 4-Heater



Pin 5<sup>b</sup>-Heater,  
Internal  
Shield,  
Grid No.2  
Pin 6-Grid No.1  
Pin 7-Cathode  
Pin 8-Plate No.2  
Pin 9-Plate No.1

## COLOR-TV DEMODULATOR

### Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE (Each plate). . . .	330 max.	volts
PEAK DEFLECTING-ELECTRODE VOLTAGE (Each electrode):		
Negative value. . . . .	165 max.	volts
Positive value. . . . .	165 max.	volts
GRID-No.3 (ACCELERATING-GRID) VOLTAGE . . . . .	330 max.	volts
GRID-No.2 (FOCUSING-GRID) VOLTAGE . . . . .	Connect to cathode at socket	
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Positive-bias value . . . . .	0 max.	volts
GRID-No.3 INPUT . . . . .	1 max.	watt
CATHODE CURRENT . . . . .	33 max.	ma
PLATE DISSIPATION (Each plate). .	3 max.	watts

### Typical Operation:

Plate Supply Voltage (Each plate)	250	volts
Grid-No.3 Voltage . . . . .	250	volts
Grid No.2 . . . . .	Connected to cathode at socket	
Cathode Resistor. . . . .	220	ohms
Maximum Deflecting-Electrode Switching Voltage <sup>c</sup> . . . . .	20	volts
Deflecting-Electrode Voltage for minimum deflecting- electrode switching voltage <sup>c</sup> . .	-14	volts
Voltage Difference Between Deflecting Electrodes for plate-No.1 current and plate- No.2 current to be equal. . . .	0	volts
Maximum Plate-No.1 Current for deflecting-electrode-No.1 volts = -15, and deflecting- electrode-No.2 volts = +15. . .	0.7	ma
Maximum Plate-No.2 Current for deflecting-electrode-No.1 volts = +15, and deflecting- electrode-No.2 volts = -15. . .	0.7	ma



# 6JH8

## Maximum Deflecting-Electrode-No.1

Current for deflecting-

electrode-No.1 volts = +25,

and deflecting-electrode-No.2

volts = -25 . . . . .

0.1

ma

## Maximum Deflecting-Electrode-No.2

Current for deflecting-

electrode-No.1 volts = -25,

and deflecting-electrode-No.2

volts = +25 . . . . .

0.1

ma

## Maximum Circuit Values:

### Grid-No.1-Circuit Resistance:

For fixed-bias operation. . . .

0.1 max.

megohm

For cathode-bias operation. . .

0.25 max.

megohm

<sup>a</sup> Without external shield.

<sup>b</sup> Pin 5 should be connected directly to cathode at socket.

<sup>c</sup> The Deflecting-Electrode Switching voltage is the total voltage change on either deflecting electrode with an equal and opposite voltage change on the other deflecting electrode required to switch the plate current from one plate to the other plate.

## OPERATING CONSIDERATIONS

This type should be located in equipment so that it is not subjected to stray magnetic fields which may affect the intrinsic operating plate-current balance.

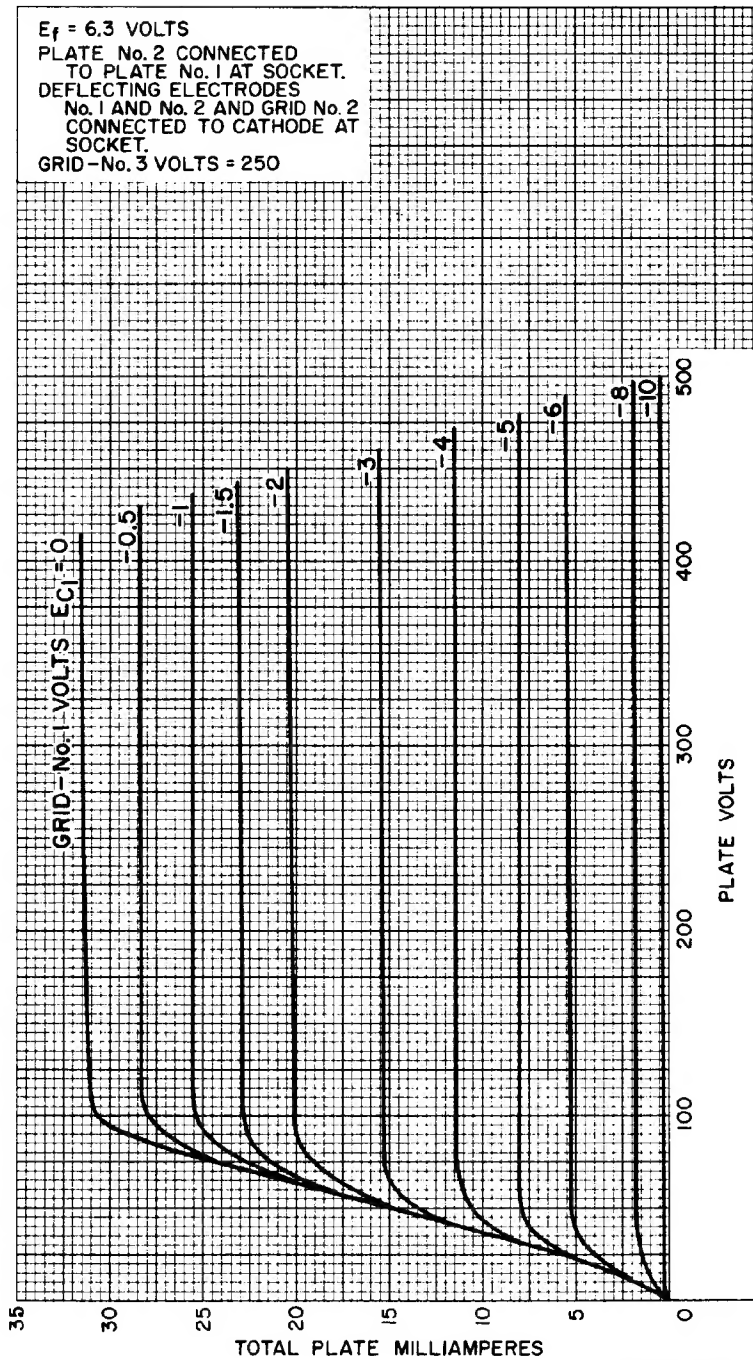


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DATA 2  
5-65

# 6JH8

## Average Plate Characteristics

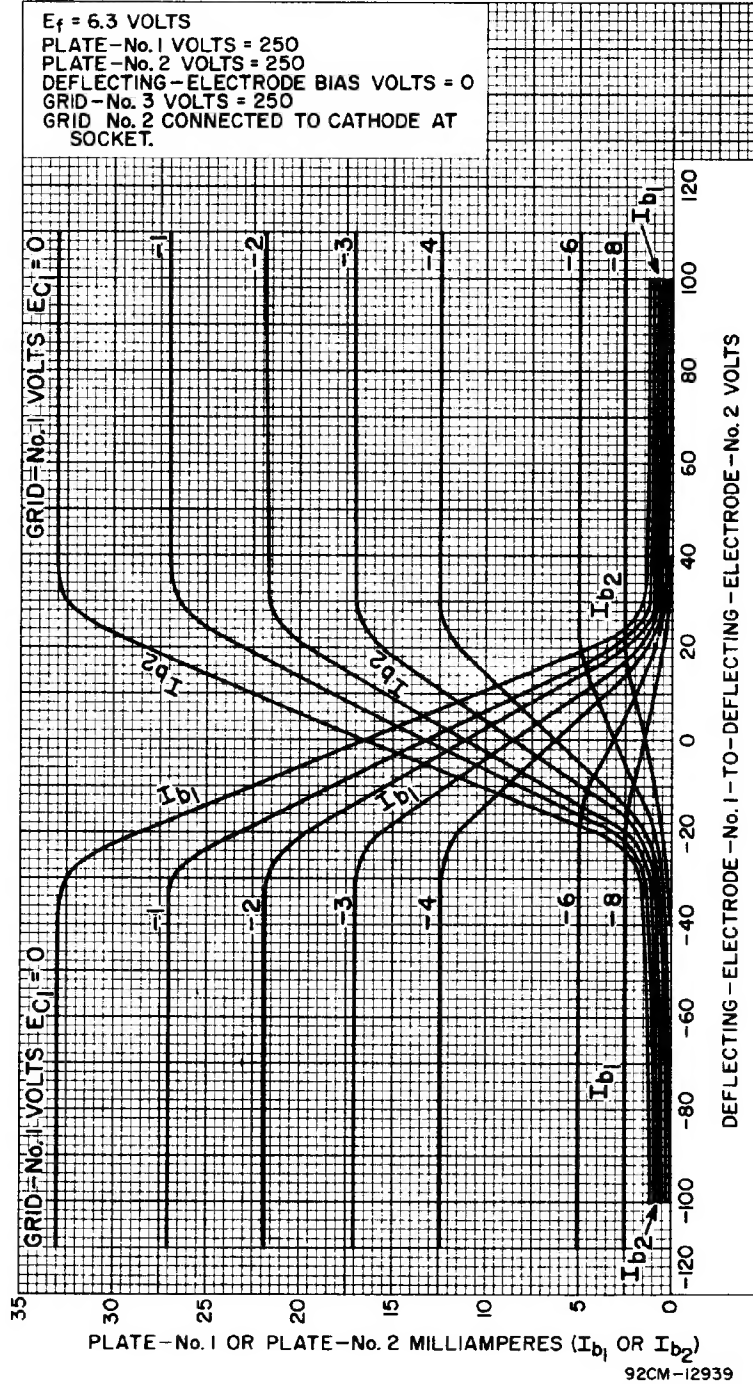


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# 6JH8

## Average Characteristics

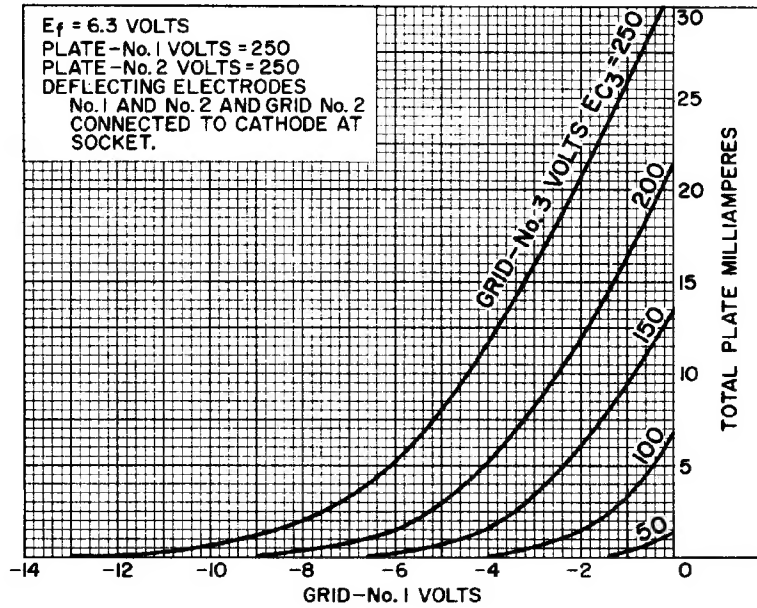


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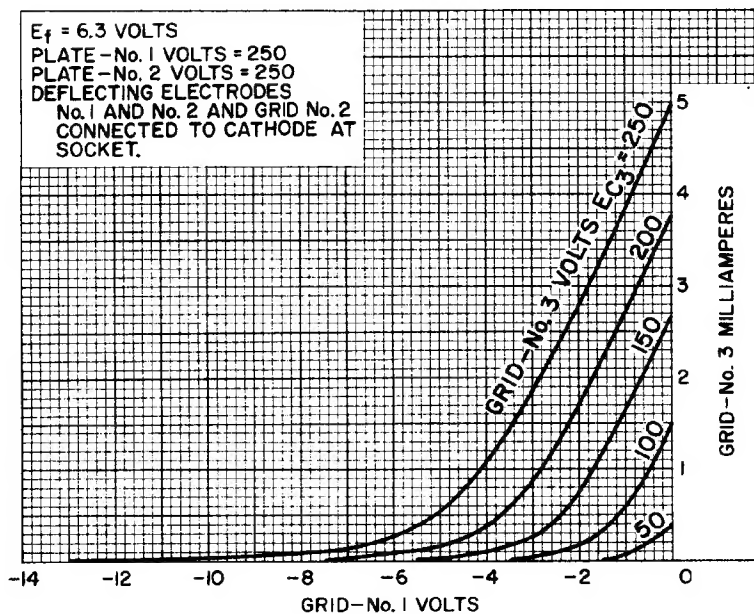
DATA 3  
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# 6JH8

## Average Characteristics



92CS-12936



92CS-12937

